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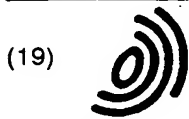
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(12) **EUROPEAN PATENT APPLICATION**

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(54) **Electronic device with trackball user input**

(57) A portable radio telephone comprising a housing, a transceiver located in the housing, a controller connected to the transceiver, a display connected to the controller, and a user input device connected to the controller. The user input device comprises a trackball movably connected to the housing and at least one trackball

rotational position sensor connected to the controller for sensing rotational movement of the trackball. The sensor includes a roller which rides against an exterior surface of the trackball. The user input device is configured to provide biased stepwise movements of the roller as the trackball is rotated by a user.

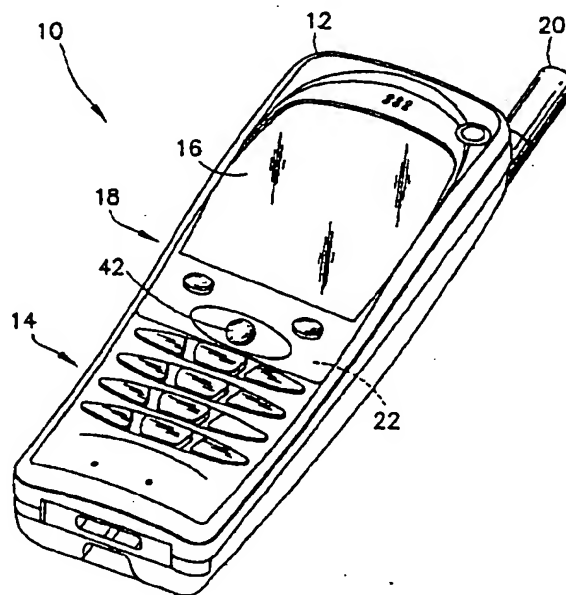


FIG. 1



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EUROPEAN SEARCH REPORT

Application Number
EP 00 30 6452

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X	PATENT ABSTRACTS OF JAPAN vol. 1999, no. 03, 31 March 1999 (1999-03-31) & JP 10 320115 A (OMRON CORP), 4 December 1998 (1998-12-04) * abstract *	1-3,22, 26	G06K11/18 H04M1/247
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The present search report has been drawn up for all claims			
Place of search BERLIN		Date of completion of the search 21 January 2002	Examiner Durand, J
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background C : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

EP-C FORM 1503 23.82 (PC-A01)



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CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing more than ten claims.

- ☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid, namely claim(s):
- ☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

- ☒ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.
- ☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.
- ☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:
- ☐ None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:



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Application Number
EP 00 30 6452

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The present search report has been drawn up for all claims			
Place of search BERLIN		Date of completion of the search 21 January 2002	Examiner Durand, J
CATEGORY OF CITED DOCUMENTS		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	
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LACK OF UNITY OF INVENTION
SHEET B

Application Number
EP 00 30 6452

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. Claims: 1-3, 9, 11-13, 19, 22, 26
trackball with tactile feedback using two orthogonal rollers
2. Claims: 4, 14, 25
trackball with polygonal rollers
3. Claims: 5-7, 15-17, 23
trackball with polygonal sphere
4. Claims: 8, 18, 24
trackball with movably biased rollers
5. Claims: 10, 20, 21
trackball with depression sensor



European Patent
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EUROPEAN SEARCH REPORT

Application Number
EP 00 30 6452

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
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			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
The present search report has been drawn up for all claims			
Place of search BERLIN		Date of completion of the search 21 January 2002	Examiner Durand, J
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date C : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p>			

EPO FORM 1503 (3.12.92) (P04C31)

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